

**DELTA-SIGMA AMPLIFIERS WITH OUTPUT STAGE SUPPLY VOLTAGE
VARIATION COMPENSATION AND METHODS AND DIGITAL AMPLIFIER
SYSTEMS USING THE SAME**

ABSTRACT:

[0034] A delta-sigma modulator for driving an output stage is disclosed. The delta-sigma modulator operates between first and second voltages and includes a loop filter, a quantizer, and a feedback loop coupling an output of the quantizer and an input of the loop filter. The feedback loop includes compensation circuitry for compensating for variations in the first and second voltages in response to a measured average of the first and second voltages and a measured difference between the first and second voltages. Measuring circuitry measures the average and the difference of the first and second voltages.

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